



Environmental Agenda Indicator Report

The mission of the Environmental Agenda is to enhance the long-term sustainability of Morgan Hill by developing a framework for reducing environmental impacts, increasing community health, and protecting the community's environmental resources for future generations. In order to monitor the implementation of the agenda, staff developed indicators to measure progress for each environmental goal on a yearly basis.

Produced by the Environmental Programs Division



2009

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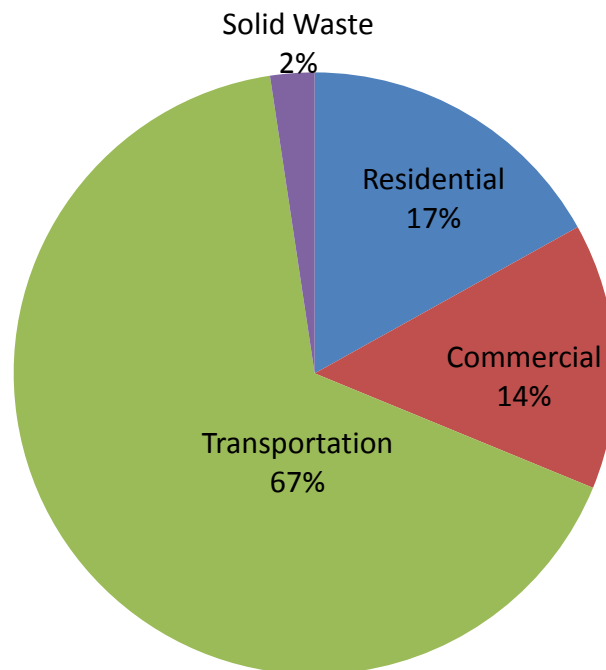
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2009 Environmental Indicator Report



The mission of the Environmental Agenda is to enhance the long-term sustainability of Morgan Hill by developing a framework for reducing environmental impacts, increasing community health, and protecting the community’s environmental resources for future generations. In order to monitor the implementation of the agenda, staff developed indicators to measure progress for each environmental goal on a yearly basis. Below are the results for 2009.

2008 Community Carbon Footprint By Source
 (396,415 Tons of Greenhouse Gas Emitted in 2008)

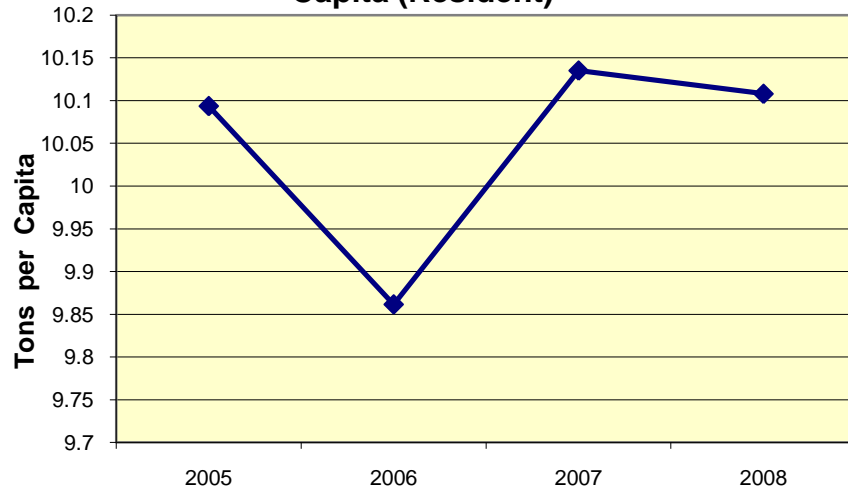


Annual citywide greenhouse gas emissions (also known as the community’s carbon footprint).

1

Goal: Limit impacts of human caused climate change by reducing community’s greenhouse gas emissions.

Yearly Community Greenhouse Gas Emissions Per Capita (Resident)



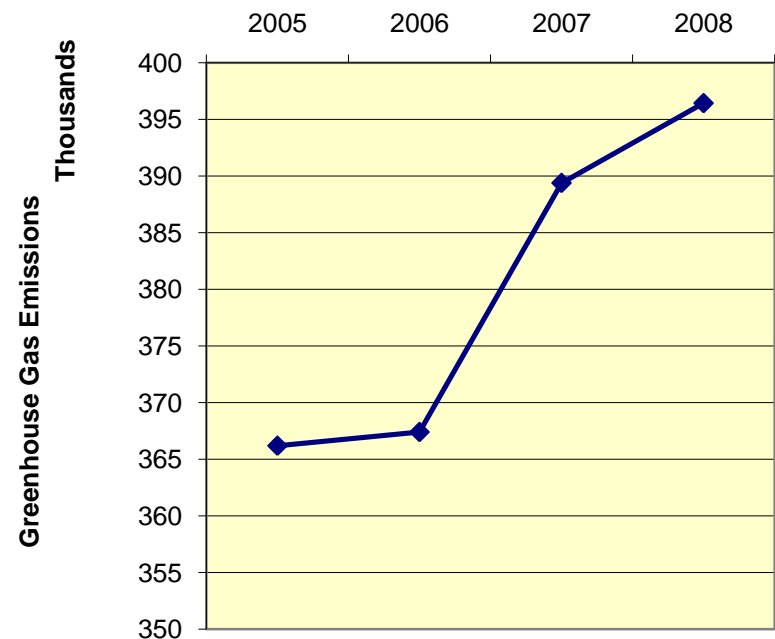
STATUS:

Energy consumption through vehicle transportation and within buildings is the major contributor to greenhouse gas emissions in the community.

The community's greenhouse gas emissions continue to rise, although there is flux in per capita (resident) emissions. This can be correlated with the recent economic downturn where residents are using less energy and businesses are closing or reducing hours to save money.

In addition, PG&E has had less access to hydroelectric power due to the recent drought years, which has caused the utility to seek other sources of energy with higher emissions. This has lead to an increase in the greenhouse gas ratio in the community.

Yearly Community Greenhouse Gas Emissions



Indicator

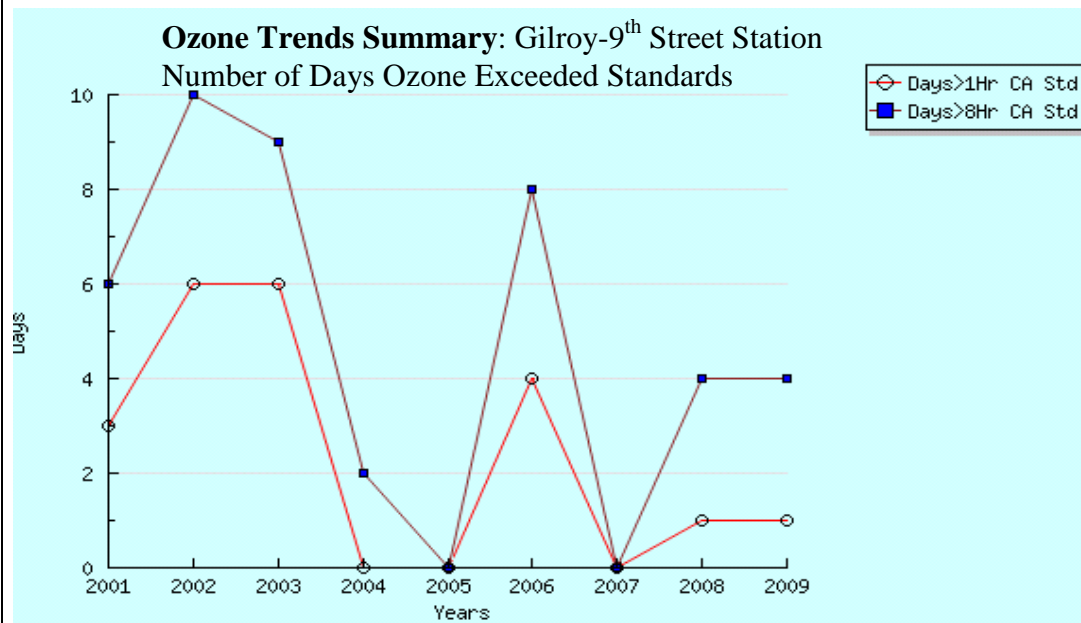
Annual number of days when ozone and PM 2.5 concentrations exceed the California Ambient Air Quality Standards at the San Martin and Gilroy air quality stations. ²

Goal: Increase community's air quality and overall health by experiencing less or no days in which air pollutants exceed national or state standards.

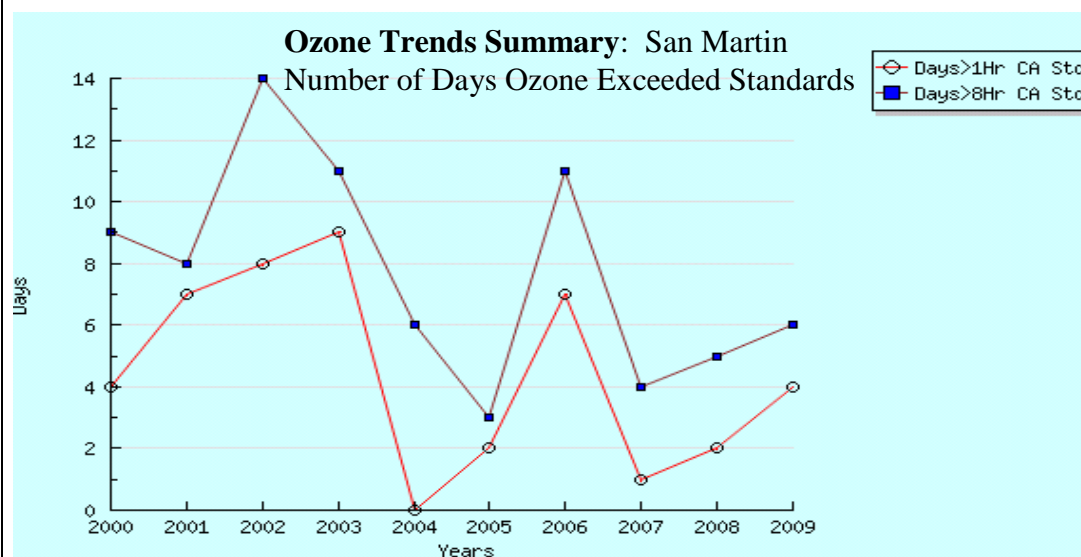
STATUS: Goal not met. There is an upward trend at the San Martin station. No change in the ozone trends at the Gilroy Station, and particulate matter is on the rise in the community.

2009 Data

* unless specified



PM 2.5 at the Gilroy-9th street air quality station exceeded National standards 3 days in 2009. In prior years, there have been no days that have exceeded the National standards.



<p>Annual total of criteria pollutants emitted from point sources. ³</p> <p><i>Goal: Increase air quality and community health by decreasing the amount of airborne pollutants released in the community.</i></p> <p>STATUS: General downward trend since 2005</p>	<p>2005- 63 tons 2006- 35 tons 2007- 55 Tons</p> <p>Note: 88% of the total emissions consist of organic gases and reactive organic gases. These trends can be attributed to economic downturn and the production of fewer pollutants, or that companies are using cleaner sources.</p>
<p>Annual total of toxic air emitted from point sources. ⁴</p> <p><i>Goal: Increase air quality and community health by decreasing the amount of airborne pollutants released in the community.</i></p> <p>STATUS: 72% decrease from 2005</p>	<p>2005- 10,116 lbs 2006- 6,578.8 lbs 2007: 2,828 lbs.</p> <p>Note: Half of the emissions are related to dry cleaning chemicals known as Perc</p>
<p>Annual number of residents/businesses that sign-up to receive advisories to "Spare -the-Air" through email or other methods. ⁵</p> <p><i>Goal: Increase air quality and community healthy by increasing the number of residents and businesses that sign up to receive alerts to reduce vehicle emissions on spare the air days.</i></p> <p>STATUS: 300% increase</p>	<p>2009 update still in progress</p> <p>In 2008, 278 residents and businesses signed up to receive free spare the air alerts</p> <p>In 2007, 70 residents and businesses signed up to receive free spare the air alerts</p>

<p>Annual gallons of gasoline/diesel sold per capita (number of jobs and driving age residents) in Morgan Hill. ⁶</p> <p><i>Goal: Protect climate and conserve energy by decreasing gasoline consumption to indicate increases in fuel efficiency or community driving behavior changes.</i></p> <p>STATUS: 11% decrease in per capita use of gasoline since 2005. Some of this percentage may be related to the economic downturn where residents and businesses are consuming less gasoline due to layoffs and business closures.</p>	<p>In 2007, 25.5 million gallons of gasoline was sold in Morgan Hill Per capita: 609 gallons/per year/driver or 12 gallons/per week/driver Average price of gas in 2007: \$2.97</p> <p>In 2008, 24.7 million gallons of gasoline was sold in Morgan Hill Per capita: 566 gallons/per year/driver Average price of gas in 2008: \$3.46</p> <p>In 2009, 23.6 million gallons of gasoline was sold in Morgan Hill Per Capita: 541 gallons/per year/driver Average price of gas in 2009: \$2.88</p>
<p>Annual number of VTA routes and stops. ⁷</p> <p><i>Goal: Reduce air pollutants by increasing ridership on public transit through more available, better and faster service to residents and businesses in Morgan Hill.</i></p> <p>STATUS: One community bus route was eliminated in 2009</p>	<p>Bus Stops 2007 : 107 bus stops and 4 bus routes 2008: 102 bus stops 2009: 66 bus stops</p> <p>Bus Routes 2007: 4 bus routes 2008: 5 bus routes 2009: 4 bus routes</p>

<p>Annual number of riders boarding and exiting VTA buses in Morgan Hill.⁸</p> <p><i>Goal: Reduce air pollutants and protect climate by increasing ridership on public transit.</i></p> <p>STATUS: Ridership increased 38%. The main increase since 2007 resulted from adding a new express bus line (Route 168) in 2008.</p>	<p>2007- 111,486 passengers boarding and exiting VTA buses in Morgan Hill 2008- 270,569 passengers boarding and exiting VTA buses in Morgan Hill 2009- 372,568 passengers boarding and exiting VTA buses in Morgan Hill</p>
<p>Annual number of Caltrain boardings at the Morgan Hill Station.⁹</p> <p><i>Goal: Reduce air pollutants and protect climate by increasing ridership on Caltrains.</i></p> <p>STATUS: Decreased ridership that may be related to the economic downturn.</p>	<p>2007- 32,637 passenger boardings (129 per day Monday through Friday) 2008- 36,210 passenger boardings (142 per day Monday through Friday) 2009- 31,365 passenger boardings (123 per day Monday through Friday)</p>

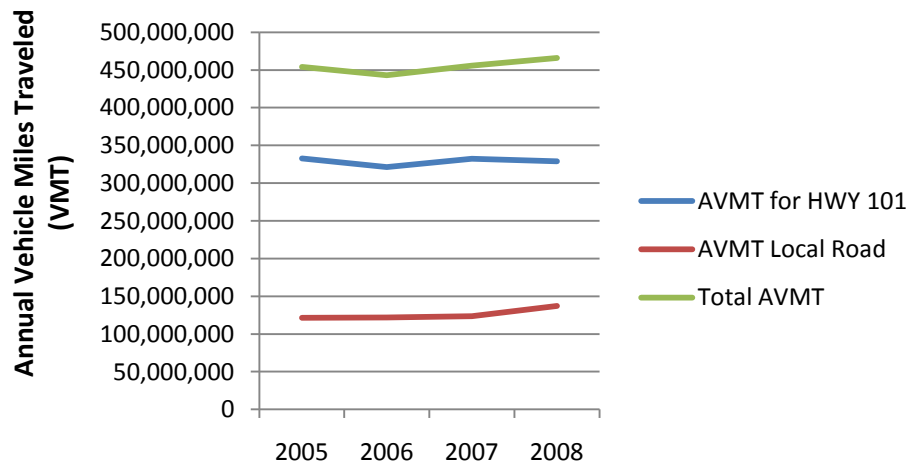
Annual vehicle miles traveled within Morgan Hill (VMT) per year/per capita (also report without Highway 101 VMT).¹⁰

Goal: Increase air quality, reduce greenhouse gas emissions, and increase community health by reducing vehicle miles traveled (VMT).

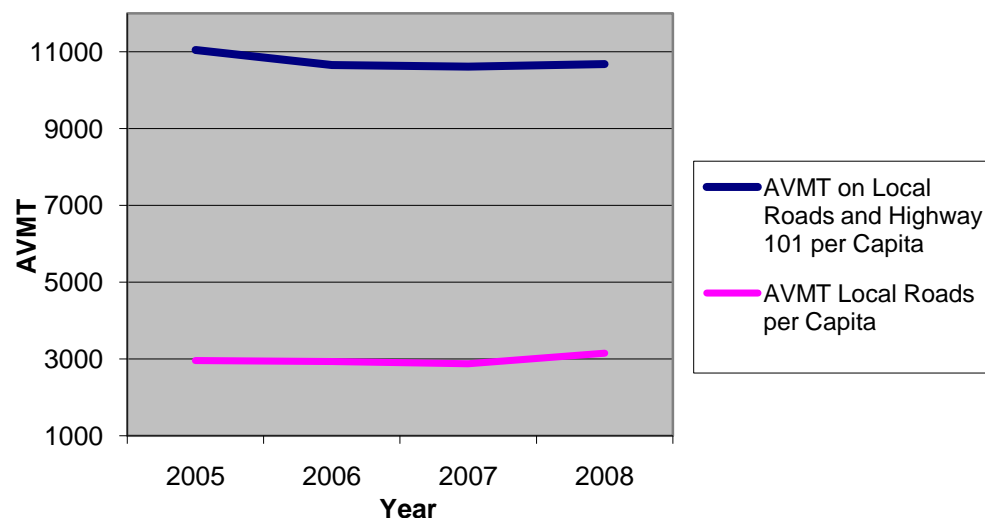
STATUS: Annual vehicle miles traveled (AVMT) on local roads increased 6% since 2005.

However, the decline in gasoline consumption may indicate that residents and businesses are purchasing more fuel efficient vehicles.

Total Annual Vehicle Miles Traveled



Annual Vehicle Miles Traveled (AVMT) Per Capita



<p>Total miles of bicycle lanes/paths/routes. ¹¹</p> <p><i>Goal: Protect climate and community health by providing more infrastructure for bicycling.</i></p> <p>STATUS: In 2009 the wildlife trail added one mile.</p>	<p>2007: 19.1 miles 2008: 19.1 miles 2009: 20.1 miles</p>
<p>Annual number of residents/workers participating in Bike-To-Work Days. ¹²</p> <p><i>Goal: Protect climate and increase community health by increasing community participation in Bike To Work Day.</i></p> <p>STATUS: Increase (95%)</p>	<p>2007: One Bike To Work Station and 32 participants 2008: One Bike To Work Station and 80 participants 2009: One Bike to Work Station 156 participants</p> <p><u>Participation in Bike to Work Month Competition</u> City of Morgan Hill employees: Police Department, Recreation, Public Works, Environmental Programs</p>
<p>Annual number of businesses within the City actively participating in 511.org alternative transportation solutions. ¹³</p> <p><i>Goal: Protect climate through increased business participation in 511.org</i></p> <p>STATUS: Decrease</p>	<p>2007: 4 businesses 2008: 2 businesses 2009: 2 businesses</p>

Annual number of residents that sign up for alternative transportation support from 511.org.¹⁴

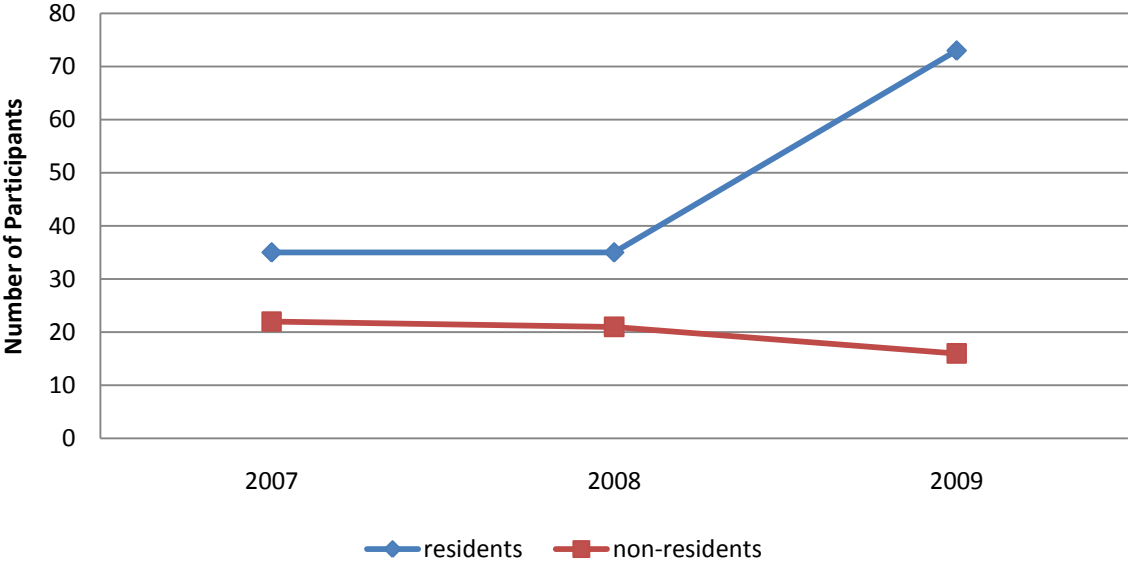
Goal: Protect climate through increased community participation in 511.org

STATUS: Increase in Rideshare signups and decreased participation in Rideshare Rewards Program

City owned tree canopy coverage (updated periodically).¹⁵

Goal: Protect climate and decrease air pollutants through increased tree canopy.

511 Rideshare Sign-ups



Rideshare Reward Incentive Program:
2007: 11 participants
2008: 4 participants
2009: 3 participants

2007 Data: City owned tree canopy makes up 1% of the total land area with an estimated 10.5 million pounds of carbon stored in the trees. Annual carbon sequestration rate is 790, 423 pounds per year.

<p>Annual number of homes and businesses with renewable energy installations. ¹⁶</p> <p><i>Goal: Protect climate by increasing the number of renewable energy installations.</i></p> <p>STATUS: 30% less installations than in 2007</p>	<p>2007- 26 photovoltaic installations (18 large installations) 2008- 30 photovoltaic installations (28 large installations) 2009: 18 photovoltaic installations (66.65 KW)</p> <p>147 photovoltaic installations since 1999, including 2009 data.</p>
<p>Percentage of population commuting to work alone, carpooling, using public transit, walking, biking, or other means for commuting. (Decennial) ¹⁷</p> <p><i>Goal: Downward trend for solo driving and upward trend in alternative commute methods.</i></p> <p>STATUS: No change will be reported until 2011.</p>	<p>2000 Census: 75.5% solo driving 14.6% of the Morgan Hill population carpools 4.4% of the Morgan Hill population uses public transit 2.3% walks, bicycles or uses some other mode 3.2% telecommutes</p>
<p>Mean travel time to work in minutes (Decennial).</p> <p><i>Goal: Downward Trend</i></p> <p>Current Status: Decreasing</p>	<p>2000 Census :33.9 minutes 2005-2007 American Community Survey: 29.2 minutes 2006-2008 American Community Survey: 29.5 minutes</p>

<p>Percentage of population or number of persons documented as having high blood pressure, diabetes, high cholesterol, asthmatic problems, or are considered obese (updated periodically).¹⁸</p> <p><i>Goal: Improve air quality and community healthy to find downward trends in preventable respiratory related illnesses.</i></p> <p>STATUS: Asthma emergencies increased by 23% from 2007 data. Asthma hospitalizations decreased by 25% from 2007 data.</p>	<p>2006</p> <p>157 asthma emergency department visits per 10,000 residents 36 asthma hospitalizations visits per 10,000 residents</p> <p>2007</p> <p>128 asthma emergency department visits per 10,000 residents 28 asthma hospitalizations visits per 10,000 residents</p> <p>2009</p> <p>157 asthma emergency department visits per 10,000 residents 21 asthma hospitalizations visits per 10,000 residents</p>
<p>Annual number of memberships/users of the Centennial Recreation Center and Aquatic Center.¹⁹</p> <p><i>Goal: Increase community health by increased participation in community recreation activities.</i></p> <p>STATUS: Overall increase in health and fitness activities.</p>	<p>Centennial Recreation Center:</p> <p>Average monthly membership: 3,135 Increased by 6% from 2008 data Average monthly users: 1, 440 Increased by 26% Average Fitlinx users: 2,350 No change Total senior lunches served: 19, 580 Increased by 5% Total teen visits to Teen Center: 6,032 Decreased 32%</p> <p>Aquatic Center:</p> <p>Total summer pass holders: 454 Increased by 107%. The increase is associated with the number of summer passes now being included with current member ship to the Centennial Recreation Center. Total summer usage (visits): 61, 900 Decreased 9%</p>

County Park Passes Issued and Healthy Trails Participation.²⁰

Goal: Increase community health by increased participation in Healthy Trails Program and County Park Pass purchases.

STATUS: Increasing. See data on right.

Annual number of county park passes purchased by Morgan Hill residents:

2007=200 park passes

2008=319 park passes

2009= No Data

County Healthy Trails Participation:

2007=10 participants

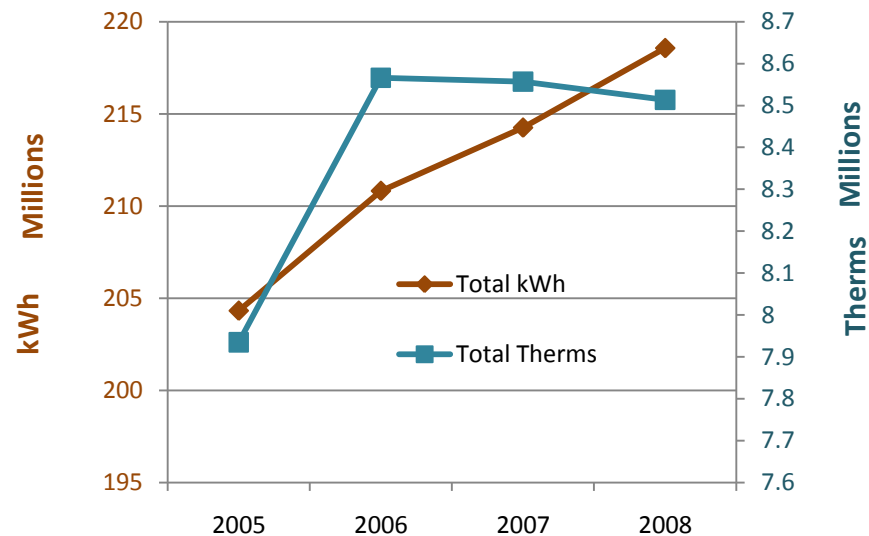
2008= 90 participants

2009= 92

Annual electricity and natural gas consumption in Morgan Hill (also report residential per capita and commercial per employment).²¹

Goal: Conserve energy by reducing building energy consumption.

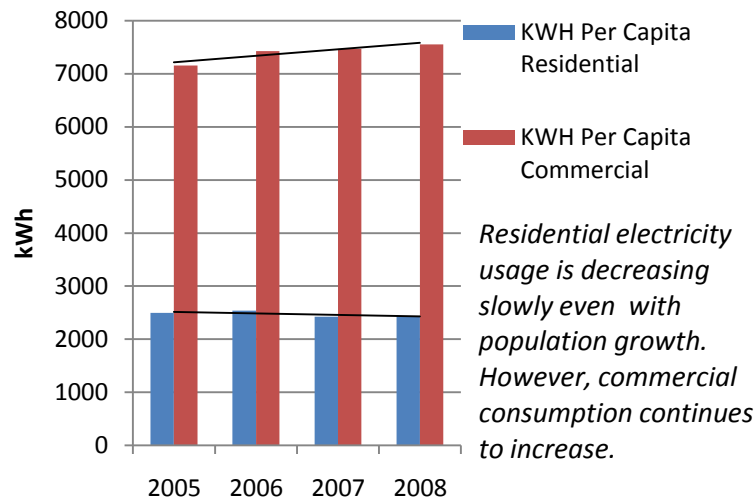
Total KWh and Therms Consumed in Morgan Hill



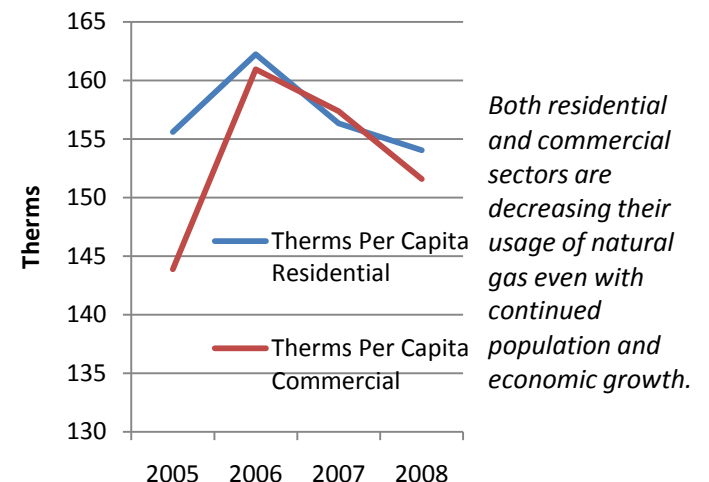
STATUS: Electricity (kWh) use has increased from the 2005 baseline year. This is due to residential and commercial growth in 2006 and 2007. *Per capita, residential energy use appears to be declining while commercial energy usage is increasing.*

Increasing energy efficiency in new and existing buildings will play a vital role in reducing electricity usage.

**Annual Per Capita (Person or Employee)
Electricity Usage In Morgan Hill**



**Annual Per Capita (Person or Employee)
Natural Gas Usage in Morgan Hill**



Annual number/percentage of projects that include green building practices beyond Title 24 Building Code requirements.²²

Goal: Conserve energy, preserve resources, and protect climate by building more sustainably.

STATUS: Increased. See data for more details.

Residential Growth Control Analysis: All projects that were submitted for the 2009 RDCS competition committed to achieving 121-131 points on Build It Green's checklist. The minimum points required for green home certification is 50 points.

Mandatory Sustainable Building Ordinance Adopted in 2009 for commercial and residential development projects. Enforcement will begin in FY 2010-2011.

<p>Number of buildings that have LEED standards or are GreenPoint rated. Also, include the number of structures that have status either as a LEED certified, Gold, Silver, or Platinum building or other level of green performance.²³</p> <p><i>Goal: Conserve energy, preserve resources, and protect climate by building more sustainably.</i></p> <p>STATUS: Increase</p>	<p>2007 Data 2005-Aquatics Center achieved Silver (City) The Granary achieved Gold (Private)</p> <p>2008 Data</p> <ul style="list-style-type: none"> 18 Madrone Plaza homes have achieved 101 points on Build It Green's Checklist (minimum points required to be considered a green home is 50.) The project will continue to certify each home for a total of 134 units. <ul style="list-style-type: none"> Development Services Center (meeting LEED Silver standards) Mangia Pizza's tenant improvement at the Granary (meeting LEED Gold standards) <p>2009 Data Friendly Inn (Gold) Renovation to the Centennial Recreation Center (Gold)</p>
<p>Habitat Conservation and Enhancement</p> <p><i>Goal: Conserve and/or enhance habitat for future generations.</i></p>	<p>Grant funded Butterfield Oak Grove Project installed 477 native oak trees to enhance habitat and sequester carbon dioxide. Additional indicators to be determined upon adoption of Habitat Conservation Plan in partnership with Santa Clara County.</p>
<p>Total area of open space owned by the City, governmental agencies, and/or non-profits in Morgan Hill's sphere of influence.²⁴</p> <p><i>Goal: Conserve and/or enhance habitat for future generations.</i></p> <p>STATUS: 2% Increase since 2007</p>	<p>2007 & 2008 985.5 acres (owned by the City) 187.5 acres (open space easements)</p> <p>2009 1005.5 acres (owned by the City) 187.5 acres (open space easements)</p>

<p>Annual number or percentage of new commercial and residential development located in the City's environmental core. Environmental core is defined from Cochrane Road to Tennant Ave. (North to South) and from HWY 101 to Dewitt (East to West).²⁵</p> <p><i>Goal: Conserve habitat and agricultural land by developing within the core of Morgan Hill.</i></p>	<p>2008 percentage of newly constructed developments occurring within the environmental core:</p> <p>92% of new residential</p> <p>0% of new commercial</p> <p>STATUS: No update for 2009. In 2008, there was a 6% decrease in new residential development in the core since 2007. There was only one newly constructed commercial building permit (Wachovia) pulled in 2008 and it was located outside the environmental core. However, many tenant improvements were made within the environmental core.</p>
<p>Annual number of vendors offering organic products at the local Farmer's Market.²⁶</p> <p><i>Goal: Increase locally purchased products by increasing participation in local Farmer's Market.</i></p> <p>STATUS: Increasing</p>	<p>2007:</p> <p>15%-20% of the vendors offered organic food</p> <p>2009:</p> <p>25% of the Farmer's Market vendors offer organic food.</p>
<p>Annual estimated number of vendors and visitors at the Farmer's Market.²⁷</p> <p><i>Goal: Increase locally purchased products by increasing participation in local Farmer's Market.</i></p> <p>Status: 19% Increase</p>	<p>Estimated visitors for 2007 season: 27,400</p> <p>Estimated visitors for 2009 season: 32, 000</p>

<p>Annual estimated sales at the local Farmer's Market. ²⁸</p> <p><i>Goal: Increase locally purchased products by increasing participation in local Farmer's Market.</i></p> <p>STATUS: 43% increase</p>	<p>Average estimated sales at Farmer's Market 2007= \$342,500 Average estimated sales at Farmer's Market in 2009 = \$488,800</p>
<p>Annual number of residents/restaurants participating in community supported agriculture (CSA). ²⁹</p> <p><i>Goal: Increase locally purchased products by increasing participation in local CSAs.</i></p> <p>Current Status: Increasing</p>	<p>2007: 22 households participated in CSAs</p> <p>2008 65 residents participated in CSAs 12 in local meat market</p> <p>2009: In progress</p>
<p>Annual number of programs sponsored or initiated by the City to encourage local consumption of food and other products (also report on public participation).</p> <p><i>Goal: Upward trend to increase buying local products.</i></p> <p>STATUS: Continued increase</p>	<p>City of Morgan Hill Environmental Programs Fan Page: 111 Fans Carbon Diet Club Fan Page: 70 Fans Civic Green Newsletter: 134 subscribers Carbon Diet Club: 205 participants since 2008</p>

Annual city employee commute method, travel distance, and carbon emissions related to traveling to and from work.

30

Goal: Downward trend in city employees driving alone and vehicle miles traveled (VMT).

STATUS: The percentage of employees driving alone has increased since 2007. However, there has been a decrease in travel miles to work, meaning that employees are moving closer to the workplace.

There was an 8% decrease in the amount of greenhouse gas emitted since 2007.

2008 Data:

43% of city employees travel 0-5 miles to get to and from work with 93% driving alone
13% of city employees travel 6-10 miles with 97% driving alone
18% of city employees travel 11-20 miles with 83% driving alone
27% of city employees travel 21 or more miles with 83% driving alone

In 2008, the employee commute contributed to 591 tons of greenhouse gas being emitted or 3.2 tons per employee.

Total vehicle miles traveled to and from work : 1.3 million miles

Annual greenhouse gas emissions from city operations.³¹

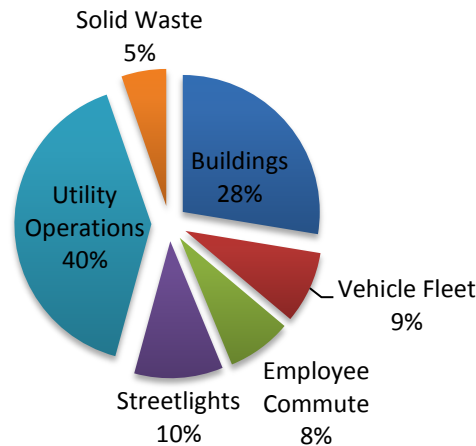
Goal: Lead the community to protect climate by reducing organization's greenhouse gas emissions.

STATUS: The city spent \$2.4 million on energy consuming activities (excluding employee commute) in 2009.

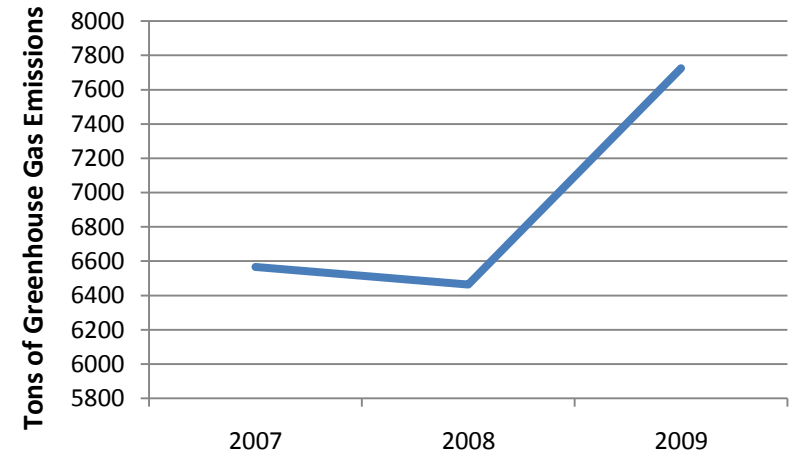
Since last year, the city's greenhouse gas emissions have increased 19.5%. Much of this increase is related to PG&E's updated carbon coefficient factors for 2009. Due to the drought, PG&E was unable to use normal quantities of renewable hydroelectric power. Thus, more fossil fuels were burned in order to deliver energy to PG&E consumers, increasing the carbon coefficient for kWh consumed by city operations.

In addition, the Development Services Center was in full operation in 2009, which increased the city's energy consumption activities.

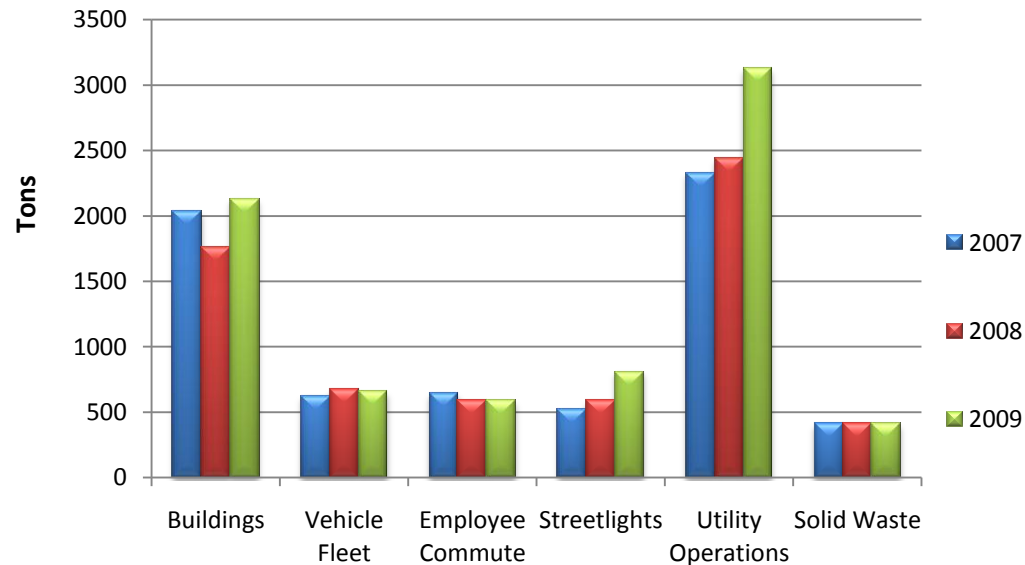
2009 Greenhouse Gas Emissions by Source Total Emitted: 7,725 tons

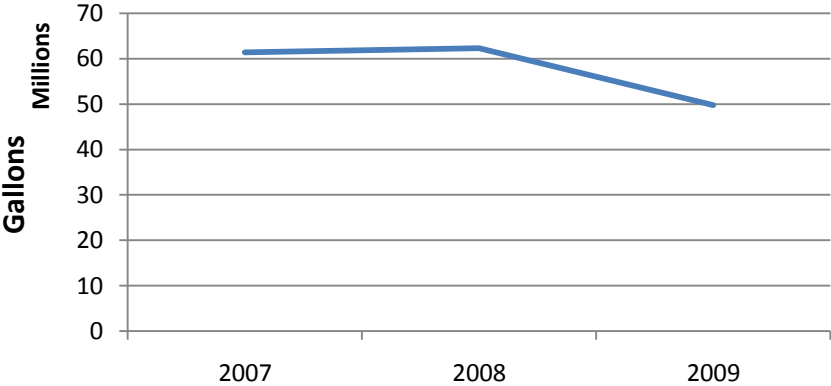


Annual Tons of Greenhouse Gases Emitted



Annual Greenhouse Gas Emissions For Government Operations By Source



<p>Average miles per gallon of city fleet vehicles.³²</p> <p><i>Goal: Increase fuel efficiency of city owned fleet to protect climate and conserve energy.</i></p> <p>STATUS: No change since 2007</p>	<p>15 mpg for local driving 20 mpg for Highway driving</p>								
<p>Annual number of alternatively powered vehicles.</p> <p><i>Goal: Increase fuel efficiency of city owned fleet to protect climate and conserve energy.</i></p> <p>STATUS: No Change</p>	<p>None</p>								
<p>Annual city government water usage.³³</p> <p><i>Goal: Downward trend to conserve water.</i></p> <p>STATUS: 19% decrease</p>	<p>City Operations Water Consumption in Gallons</p>  <table border="1"> <thead> <tr> <th>Year</th> <th>Gallons (Millions)</th> </tr> </thead> <tbody> <tr> <td>2007</td> <td>62</td> </tr> <tr> <td>2008</td> <td>62</td> </tr> <tr> <td>2009</td> <td>50</td> </tr> </tbody> </table>	Year	Gallons (Millions)	2007	62	2008	62	2009	50
Year	Gallons (Millions)								
2007	62								
2008	62								
2009	50								

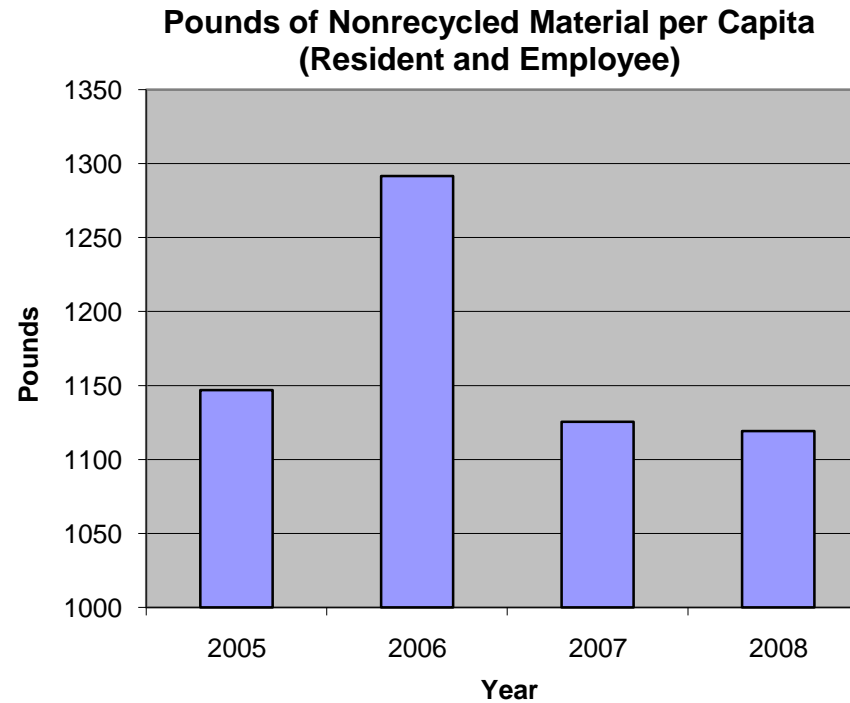
<p>Annual number of trees planted by the City.</p> <p><i>Goal: Upward trend to protect climate, air quality, and community health.</i></p> <p>STATUS: 19% increase</p>	<p>2007: 431 trees planted 2008: 52 trees planted by the Parks Division 2009: 60 trees planted in by Parks Division</p>
<p>Annual amount of hazardous waste generated by city operations, and collected along city roadways.³⁴</p> <p><i>Goal: Downward trend to reduce pollution in the environment.</i></p> <p>Status: Increased 62%</p>	<p>2008: 2,541 pounds of hazardous waste disposed 2009: 6,690 pounds of hazardous waste disposed</p>
<p>Annual number of projects/programs that improve the environmental performance of the city and are specific to the goals of the environmental agenda. If applicable, the number of participants will be included.</p> <p><i>Goal: Increased participation in environmental programs to improve overall sustainability in the community through.</i></p> <p>Status: Upward Trend</p>	<p>Carbon Diet Club Program: 205 households participated since 2008 (including Ann Sobrato High School Students) to annually reduce 1,358,935 greenhouse gas emissions.</p> <p>City of Morgan Hill Environmental Programs Facebook Fan Page: 111 Fans Carbon Diet Club Facebook Fan Page: 70 Fans Civic Green Newsletter: 134 subscribers</p> <p>Sustainable Building Ordinance established</p> <p>Water Conservation Ordinance strengthened</p> <p>RecycleBank Program</p> <p>Facebook Outreach Awarded two environmental enhancement grants</p>

<p>Annual amount of household hazardous waste diverted from landfill or other areas and number of participants in Household Hazardous Waste (HHW) events.³⁵</p> <p><i>Goal: Upward trend to prevent pollution from getting into the natural environment</i></p> <p>STATUS: 13% increase in participation since 2008</p>	<p>2007: 946 participants (5,101 lbs of batteries and florescent lights)</p> <p>2008: 889 participants (25,956.25 pounds)</p> <p>2009: 1,066 participants</p>
<p>Annual quantity of commercial hazardous waste that is treated/disposed of off-site.³⁶</p> <p>STATUS: Update for 2008 and 2009 is in progress.</p>	<p>In 2007, 1,030 tons of commercial hazardous waste was disposed of offsite.</p>
<p>Annual number of certified green businesses.³⁷</p> <p><i>Goal: Upward trend to increase and promote sustainability in the community.</i></p> <p>STATUS: Slowly increasing</p>	<p>2007: 9 businesses 2008: 13 businesses 2009: 15 businesses</p>

Citywide tonnage of waste
landfilled per year.³⁸

*Goal: Downward trend to
conserve resources.*

STATUS: 2% decrease
since 2005. The 2006 spike
can be related to increased
economic activity.



Citywide tonnage of
recycled materials diverted
from the landfill per year.³⁹

*Goal: Upward trend to
conserve resources*

STATUS: 1% decrease
since 2007

Fiscal Year 2007-2008: 11,104 tons
Fiscal Year 2008-2009 - 10,661 tons
Fiscal Year 2009-2010 - 10,981 tons

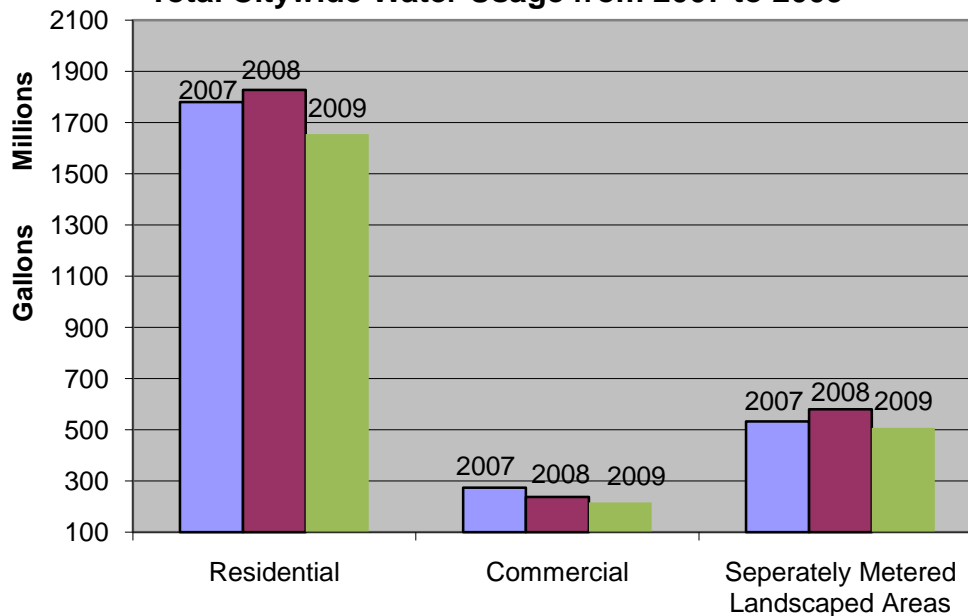
Annual citywide water consumption (also report by commercial and residential sector).⁴⁰

Goal: Downward trend to conserve water.

STATUS: A total of 2.3 billion gallons of water was consumed in 2009, which is a 12% decrease from 2007.

Residential usage per capita has decreased even with population growth.

Total Citywide Water Usage from 2007 to 2009



Water Usage Per Capita (Resident or Employee) Excluding Landscaped Meters from 2007 to 2008



<p>Annual feet of recycled water pipe in the city. ⁴¹</p> <p><i>Goal: Upward trend to conserve water</i></p> <p>STATUS: No Change</p>	NONE
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Data Sources for Indicators

¹ **Carbon Footprint:** The community's energy consumption data is collected from PG&E for kWh and therms consumed, the Metropolitan Transportation Commission for vehicle miles traveled (VMT) on local roads, and Recology for tons of waste that is landfilled (not recycled or reused). The data is analyzed using software from the air district and ICLEI (Local Governments for Sustainability) that incorporates regional greenhouse gas emission coefficients to estimate greenhouse gas emissions produced from energy consumed. The carbon footprint is expressed as a carbon equivalent calculation that includes other greenhouse gases associated with climate change. The carbon dioxide equivalent for a particular gas is derived by multiplying the tons of the gas by the associated climate change potential.

² **Annual number of days ozone and PM 2.5 exceed State and Federal standards:** Information is obtained from the California Air Resources Board website at <http://www.arb.ca.gov/adam/welcome.html>. The air quality stations are operated by the Bay Area Air Quality District (BAAQMD). The San Martin Station monitors only ozone and the Gilroy station monitors PM 2.5 & ozone. Note that the Federal standard for PM 2.5 is used by BAAQMD because there are no State standards.

³ **Annual total criteria pollutants emitted from point sources:** The most current data was collected from the California Air Resources Board website at <http://www.arb.ca.gov/app/emsinv/facinfo/facinfo.php>. The data includes the following criteria pollutants: organic gases, reactive organic gases, carbon monoxide, nitric oxide, nitrogen dioxide, sulfur dioxide, sulfur trioxide, particulate matter- PM (dust, sand, etc.), and PM10 (refers to the fraction of particulate matter with an aerodynamic diameter of 10 micrometers and smaller; these particles are small enough to penetrate the lower respiratory tract).

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- ⁴ **Annual toxic air emitted from point sources:** The most current data was collected from the California Air Resources Board website <http://www.arb.ca.gov/app/emsinv/facinfo/facinfo.php>. Data includes the following toxic air pollutants: Hexane, EGBE, Isopropyl Alcohol, Benzene, Formaldehyde, Nickel, Ethylene Glycol, Methanol, Ethyl Acrylate, MEK, Methylene Chloride, TCE, Xylenes, Chloroprene, Toluene, Arsenic (0.002 lbs was emitted in 2005), Beryllium (0.001 lbs. emitted in 2005), Cadmium (0.005 lbs), Lead (0.005), Manganese (0.006), Mercury (0.002), Perc (dry cleaner's chemical.)
- ⁵ **Annual number of residents/businesses that sign-up for Spare the Air Alerts:** Data was obtained from the Bay Area Air Quality Management District (BAAQMD) Spare-the-Air Division.
- ⁶ **Annual gallons of gasoline/diesel sold per capita:** Gallons sold is an estimate based on annual sales from gas stations in Morgan Hill. The Morgan Hill Finance Department supplied total sales from gas stations in Morgan Hill from July 1st through June 30th. Assuming that 90% of sales at gas stations are for gasoline, calculations were based on the average price of gas from July 1st to June 30th to estimate the amount of gasoline sold within Morgan Hill. Average price of gasoline for California was obtained from the Energy Information Agency: U.S. Department of Energy. Per capita is based on the average number of jobs from April 1st through March 31st and 69.5% of the total Morgan Hill population that is of driving age (over 18 years of age) according to the most current census data.
- ⁷ **Annual number of VTA routes and stops:** Data was obtained from the Valley Transportation Authority (VTA).
- ⁸ **Average number of riders boarding and exiting VTA buses in Morgan Hill:** Data was obtained from VTA. Annual estimate is based on 51 weeks of bus operation.
- ⁹ **Annual number of Caltrain boardings at Morgan Hill Station:** Data was obtained from Caltrain and numbers are based on an annual survey conducted every February. Normally there are 255 days of train service at the Morgan Hill Station.
- ¹⁰ **Annual vehicle miles traveled (VMT):** Data was obtained from the Metropolitan Transportation Commission (MTC) and ICLEI. VMT is measured using the Highway Performance Monitoring System (HPMS). Per capita is based on the average number of jobs per year and 69.5% of the total population that was of driving age per year. Driving age percentage was obtained from the most current census data that provides the percentage of the population over 18 years of age in Morgan Hill.
- ¹¹ **Total miles of bicycle lanes/paths/routes:** Data was obtained from the Public Works Department.
- ¹² **Annual number of residents/workers participating in Bike To Work Day:** Data was obtained from Morgan Hill's Bicycle Technical Advisory Committee (BTAC).
- ¹³ **Annual number of businesses actively participating in Rideshare programs:** Data was obtained from 511.org (Rideshares).

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- ¹⁴ Data was obtained from 511.org (Rideshares).
- ¹⁵ **City Owned Tree Canopy Coverage:** Measured periodically by city staff using itree software from the U.S. Department of Forestry.
- ¹⁶ **Annual number of renewable energy installations:** Data was obtained from the Community Development Department.
- ¹⁷ **Percentage of population utilizing alternative transportation solutions:** Information obtained from the U.S. Census Bureau, Census 2000. Next Census update will be in 2010.
- ¹⁸ **Community Health:** Currently, there is little information available from public health agencies to annually analyze the health of Morgan Hill citizens. Staff continues to check with the Health Trust and BAAQMD for any information relevant to Morgan Hill. Asthma information was obtained from California Breathing, California Office of Statewide Health Planning and Development (OSHPD). Local school fitness tests may be used as an indicator in the future to determine obesity in the community. Information can be obtained from State websites.
- ¹⁹ **Annual users of Centennial Recreation Center and Aquatics Center:** Data was obtained from Parks and Recreation Department.
- ²⁰ **County Healthy Trails Participation:** Data for Healthy Trails was obtained from Santa Clara County Parks Department.
- ²¹ **Annual energy consumption:** Data was obtained from PG&E. Per capita analysis is based on population for residential consumption or employment for commercial consumption.
- ²² Data was obtained from the Building Department.
- ²³ Data was obtained from city staff and local developers.
- ²⁴ **Acres of Open Space:** Data was obtained from the Planning Department. Open space easements are a result of development credits transferred from private land owners to developers.
- ²⁵ **Percentage of newly constructed developments within core:** Data was obtained from the Building Department through building permits issued and analyzed using geographic information system software.
- ²⁶ **Farmer's Market Data:** Data was obtained from the California Farmers' Markets Association.
- ²⁷ **Farmer's Market Data:** Data was obtained from the California Farmers' Markets Association.

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- ²⁸ **Farmer’s Market Data:** Data was obtained from the California Farmers' Markets Association.
- ²⁹ **Community Supported Agriculture (CSA) Data:** Data was obtained from local farms that provide drop-off locations in Morgan Hill.
- ³⁰ **Employee Commute Survey:** Data was obtained from a survey distributed in November 2007 and 2008. Results were analyzed by 511.org (Rideshares).
- ³¹ **City Operations Carbon Footprint:** Data was obtained from City records and analyzed using Climate Protection Software provided by ICLEI.
- ³² **City Vehicles:** Data was obtained from fleet inventory and EPA standards for miles per gallon in relation to specific car makes and models.
- ³³ **Water for City operations:** Data was obtained from the City’s Finance Department
- ³⁴ **Hazardous Waste collected or disposed of by the City:** Data was obtained from the Public Works Department and includes motor oil, batteries, aerosol cans, transit asbestos, concrete pipe, and other solid waste.
- ³⁵ **Hazardous Waste Collected by the Community:** Data was obtained from Santa Clara County Household Hazardous Waste Department (HHW).
- ³⁶ Data was obtained from manifests submitted to the State Department of Toxic Substances Control.
- ³⁷ **Green Businesses Count:** Data was obtained from Santa Clara County’s Green Business Program.
- ³⁸ **Community waste that is landfilled:** Data was obtained from California Integrated Waste Management. Per capita is based on total population and workforce.
- ³⁹ **Tons recycled:** Data was obtained from Recology.
- ⁴⁰ **Citywide water usage:** Data provided by City’s Finance Department (utility billing).
- ⁴¹ Data to be provided by the Public Works Department.